



# Dr Pavlos Papadopoulos

Lecturer of Cybersecurity @ ENU

Technical Lead @ TrueDeploy

Edinburgh Napier  
UNIVERSITY



True:  
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MSc

## Advanced Security & Digital Forensics

Postgraduate, Full-time





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## Privacy-Preserving Passive DNS

by Pavlos Papadopoulos <sup>1,\*</sup> , Nikolaos Pitropakis <sup>1,\*</sup> , William J. Buchanan <sup>1</sup> ,  
 Owen Lo <sup>1</sup> and Sokratis Katsikas <sup>2,3</sup>

## A Privacy-Preserving Healthcare Framework Using Hyperledger Fabric

by Charalampos Stamatellis <sup>1</sup> , Pavlos Papadopoulos <sup>1,\*</sup> , Nikolaos Pitropakis <sup>1,2</sup> ,  
 Sokratis Katsikas <sup>3,\*</sup> and William J. Buchanan <sup>1</sup>

## Privacy and Trust Redefined in Federated Machine Learning

by Pavlos Papadopoulos <sup>1,\*</sup> , Will Abramson <sup>1</sup> , Adam J. Hall <sup>1</sup> ,  
 Nikolaos Pitropakis <sup>1,2</sup> and William J. Buchanan <sup>1</sup>

## Decentralized Privacy: A Distributed Ledger Approach

[Pavlos Papadopoulos](#) , [Nikolaos Pitropakis](#) & [William J. Buchanan](#)



True:  
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- Research, Innovation & Enterprise
- Entrepreneur in Residence
- Bright Red Triangle

Original Scope:           **Privacy-Preserving Healthcare**



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SECURING  
THE  
SOFTWARE  
SUPPLY  
CHAIN

Edinburgh Napier  
UNIVERSITY

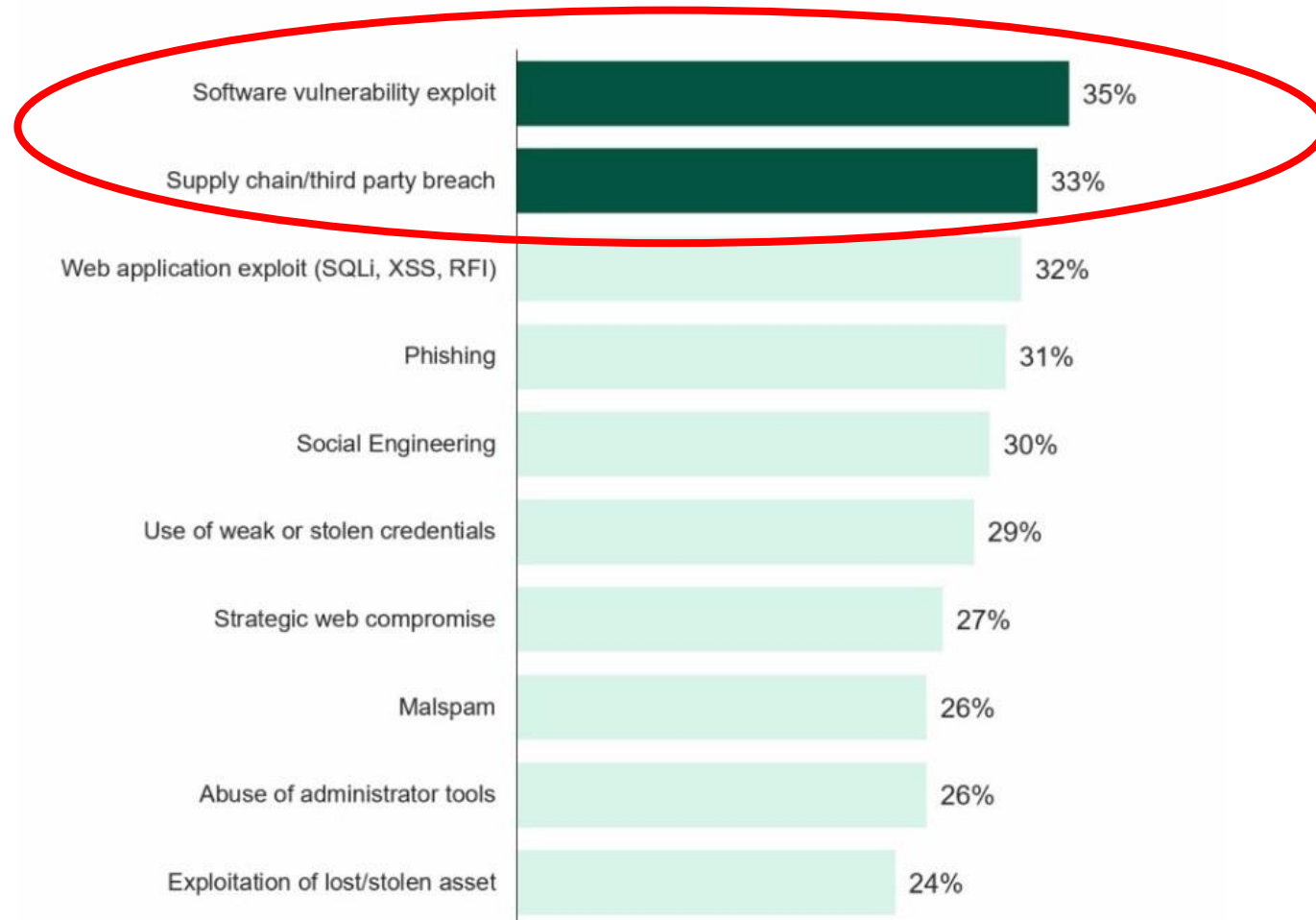


# PROBLEM



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## How was the external attack carried out?

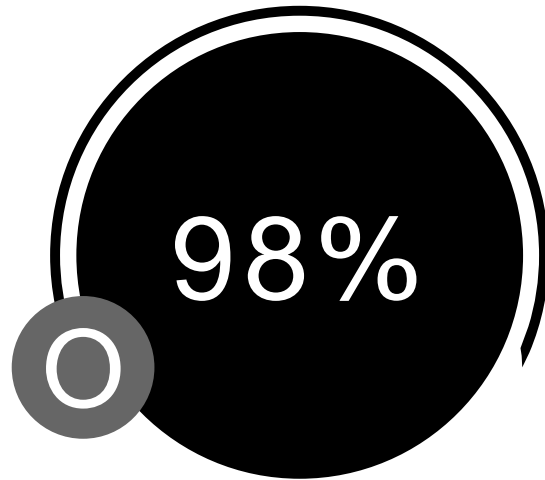


Source: Forrester Analytics Business Technographics Security Survey, 2021  
Base: 530 Security decision-makers with network, data center, app security, or security ops responsibilities who experienced an external attack when their company was breached

# PROBLEM

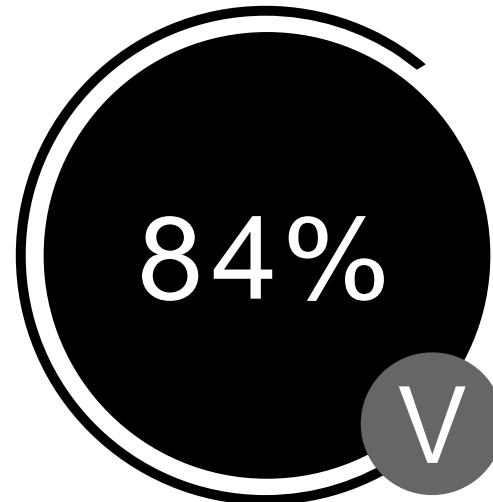


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CODEBASES WITH  
OPEN-SOURCE  
SOFTWARE

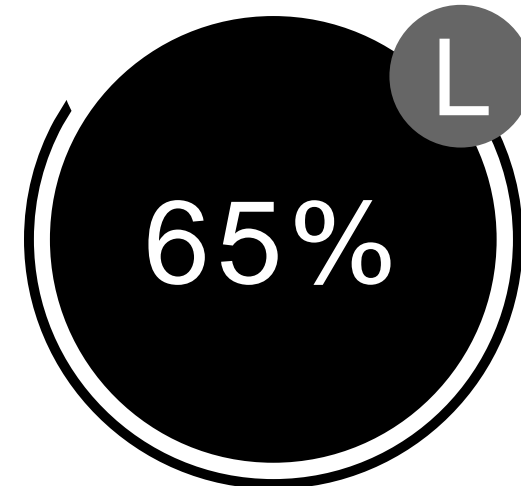
OUT OF 1546  
CODEBASES  
ACROSS 17 INDUSTRIES



CODEBASES WITH  
VULNERABILITIES

AVERAGE 158

2.2 YEARS  
OLD



CODEBASES WITH  
OPEN-SOURCE  
LICENSE  
CONFLICTS

# WHY NOW?



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FORRESTER

NEW BLOG POST

## Biden Executive Order Bets Big On Zero Trust For Future of US Cybersecurity

Jeff Pollard, VP Principal Analyst   Allie Mellen, Analyst  
Sandy Carielli, Principal Analyst   Steve Turner, Analyst

[Read Here](#)

## United in Security: US and UK Vow to Improve Software Supply Chains

FTC Threatens Legal Action on Unpatched Log4j Vulnerabilities

New EU cybersecurity rules ensure more secure hardware and software products

# WHY NOW?



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**Nutrition Facts**  
Serving Size 1/4 pkg (43g mix)  
Servings Per Container 10

Amount Per Serving	Mix	Prepared
<b>Calories</b>	160	260
Calories from Fat	10	110
	% Daily Value**	
<b>Total Fat</b> 1g*	2%	18%
Saturated Fat 0.5g	3%	34%
Trans Fat 0g		
<b>Cholesterol</b> 0mg	0%	29%
<b>Sodium</b> 240mg	10%	13%
<b>Total Carbohydrate</b> 36g	12%	12%
Dietary Fiber 1g	5%	5%
Sugars 23g		
<b>Protein</b> 1g		
Vitamin A	0%	8%
Vitamin C	0%	0%
Calcium	0%	0%
Iron	5%	8%

\*Amount in mix. As prepared, one serving provides 12g total fat (7g saturated fat), 90mg cholesterol, 220mg sodium, and 4g protein.

\*\*Percent Daily Values are based on a diet of 2,000 calories a day. Your daily values may be higher or lower depending on your calorie needs.

	Dietary	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	35g	45g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

**Ingredients:** Sugar, Rice Flour, Potato Starch, Cocoa Processed with Alkali, Tapioca Starch, Leavening (baking soda, sodium acid pyrophosphate, monocalcium phosphate), Salt, Guar Gum, Soy Flour.

**CONTAINS SOY INGREDIENTS.**  
DISTRIBUTED BY GENERAL MILLS SALES, INC.,  
MINNEAPOLIS, MN 55448 USA  
**PRODUCT OF CANADA**  
**GLUTEN FREE**  
© 2011 General Mills  
3957646112

KNOWING THE INGREDIENTS OF THE CAKE IS GOING TO BE ESSENTIAL

# PAIN....



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LARGE ORGANISATIONS



MEDIUM SIZED  
ORGANISATIONS



SMALL BUSINESSES &  
STARTUPS

# WHAT WE DO



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- **KEEP TRACK** of all the **INGREDIENTS** in software
- **MONITOR VULNERABILITIES** and **IMPROVE** software security
- **FRICITIONLESS COLLECTION** of security artefacts

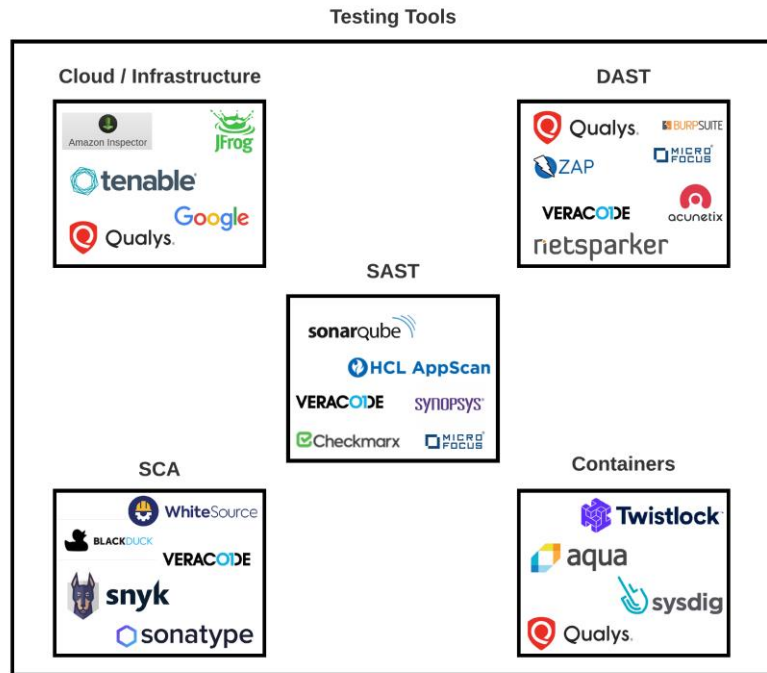


DO THIS ALL IN A ZERO-TRUST APPROACH USING  
**DISTRIBUTED LEDGER TECHNOLOGY**

# SOLUTION



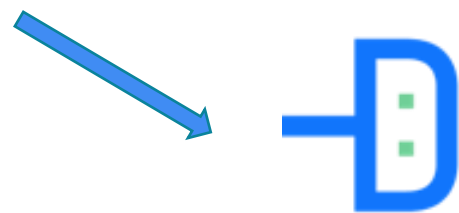
## APPLICATION SECURITY



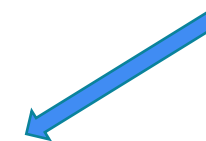
## 3<sup>RD</sup> PARTY RISK MANAGEMENT



## OTHER SECURITY ARTIFACTS



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# SOLUTION



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The screenshot displays the True: Deploy web interface. At the top left, the logo 'True: Deploy' is visible. The top navigation bar includes 'FUNDAMENTALS', 'CONNECTIONS', 'HISTORY', 'HELP?', and a 'SHARE' button. A blue progress bar indicates '70% COMPLETE'. A search bar is located on the right. The main section is titled 'TIMELINE:' and features navigation buttons for 'PREV' and 'OLDER', along with a date '22/08/22'. Below the timeline, a 'DEPLOYED' section shows a list of resolved issues with dropdown menus for each, including 'LOG4J - V 3.1.1', 'BZIP2 - V 4.9', 'APACHE ACTIVEMQ - V 3.8', 'MATPLOTLIB - V 1.5', 'AUTHB - LOG IN CLIENT - V 2.0', and 'BEAUTIFULSOUP - V 4.0.1'. To the right of the issues is a 'Depsdatab' section with three large numbers: 97, 32, and 8, and a list of dependencies like 'Apache ActiveMQ', 'Apache Commons BeanUtils', 'bzip2', 'dom4j', and 'jsportal'. Further right is a 'Sonarqube' section with a 'Static Analysis Score' of 01.01.23 and a radar chart showing metrics for Maintainability, Reliability, Security Vulnerabilities, and Testability. On the far left and right are two 'O1 Veracode' sections, both showing a 'Static Analysis Score' of 01.01.23 and a '63.33%' completion rate, with sub-metrics for Code Smells, Vulnerabilities, and Security.

# VISION

**“To make Software Secure by bringing Trust and Transparency into the Software Supply Chain”**

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# WHERE WE ARE



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**Total Funding: £330,000**

# WHERE WE ARE



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## SCALEUPS – 2023

OVER 50 CUSTOMER ENGAGEMENTS  
MULTIPLE PILOT PROJECTS STARTING

## GOVERNMENT / DEFENCE – 2023/24

POSITIVE RESPONSE TO INNOVATION  
OUTLINE SUBMITTED TO DEFENCE  
DIGITAL (MINISTRY OF DEFENCE)

## REGULATED BUSINESSES – 2024/25

INITIAL PRODUCT FOCUSED ON  
HEALTHTECHS AND FINTECHS



Total Funding: £330,000

# FOUNDERS



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**Dr Pavlos Papadopoulos**

**Technical Lead** for spinout,  
The innovation derived from his PhD research.



**Nanik Ramchandani**

**Commercial Champion** for spinout,  
More than 20 years of business and investing  
experience.



**Dr Jamie Graves**



**Ex-CEO of Uleska, Ex-CEO of Zonefox.**  
Responsible for building and selling Zonefox to  
Fortinet.

# TEAM



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Prof Bill Buchanan OBE

**Core lead in investment opportunities, Chair DESIGNATE.** Has led **four** research projects to **spinout success** (Zonefox, Symphonic, Cyan Forensics, and MemCrypt). Published over 300 research papers, 30 academic books, and has links into collaboration networks around the world. **Cryptography expert.**



Dr Nick Pitropakis



**Associate Professor** with extensive experience in highly-impact European Horizon funded research projects.

Dr Owen Lo



**Senior Software Developer.** Been involved with three prior spin-outs from Edinburgh Napier University ('ENU'). Assisting in the development of the deep tech aspects of our solution.

Aggelos Lagos

**Marketing Executive.** A young, passionate undergraduate student at Athens University of Economics and Business, with experience in social media and marketing.



# NEED TO SUCCEED



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## 01 | INVESTORS

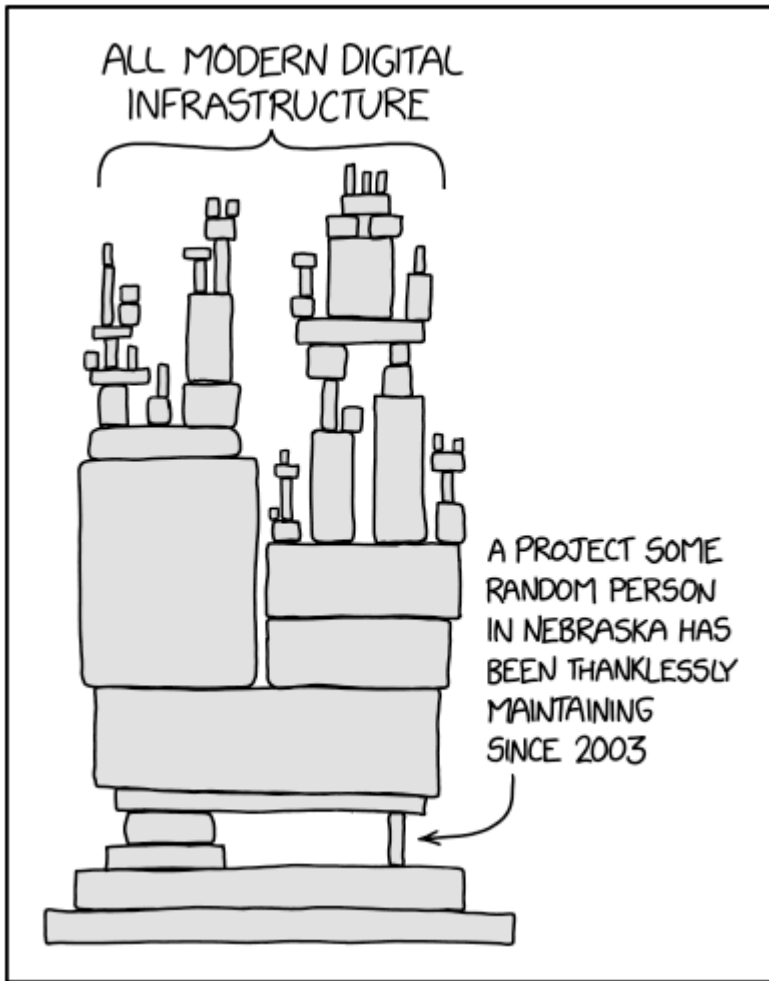
JOIN US IN OUR JOURNEY.

(+ £1.25 Million SEIS / EIS Raise in 2023)

## 02 | INDUSTRY PARTNERS

PARTNER WITH US AND BE OUR  
PILOT AND EARLY CUSTOMERS.





Source: <https://xkcd.com/2347/>



# THANK YOU !



**Twitter:** @TrueDeploy  
**Web:** <https://www.truedeploy.com>  
**LinkedIn:** <https://www.linkedin.com/company/truedeploy>

